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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,173	11/18/2003	John Christopher Adams	043197.271470	5997
826	7590	06/16/2005	EXAMINER	
ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000			DESAI, ANISH P	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/717,173	ADAMS ET AL.
	Examiner	Art Unit
	Anish Desai	1771

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 18<sup>th</sup> November 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-30 is/are pending in the application.  
4a) Of the above claim(s) 28-30 is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-27 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 04/04/05.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

**DETAILED ACTION**

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-27, drawn to a heat-sensitive stencil master comprising a heat-sensitive polymeric film, classified in class 428, subclass 304.4.
- II. Claims 28-30, drawn to a method of manufacturing heat-sensitive stencil, classified in class 427, subclass 207.1.

The inventions are distinct, each from the other because of the following reasons:

1. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product (i.e. heat-sensitive stencil master as claimed can be made by another and materially different process. For example, instead of using a foam layer, use a layer of porous tissue paper and laminate it to the polymeric film.
2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
3. During a telephone conversation with Mr. Ryan Kegal on May 19<sup>th</sup> 2005 a provisional election was made with traverse to prosecute the invention of Group I,

claims 1-27 drawn to a heat-sensitive stencil master comprising a heat-sensitive polymeric film. Affirmation of this election must be made by applicant in replying to this Office action. Claims 28-30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Regarding claim 6, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

7. Claims 16, 18, 25 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention. Aforementioned claims state "a method of producing prints in a digital duplicating printing process". However, these claims do no provide any steps that show how the claimed product (i.e. stencil) is used to practice the claimed method (i.e. method to produce prints). Thus these claims are considered to be indefinite.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 16, 18, 25 and 27 provide for the use of stencil in a method of producing prints in a digital duplicating process, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 16, 18, 25 and 27 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 3-8, 13, 14, 17, 19-22, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori (US Patent 5,908,687).
10. Regarding claim 1, Mori teaches a heat sensitive stencil including a thermoplastic resin film, and a porous resin layer formed thereon (see Abstract). The thermoplastic resin film has a thickness of 0.5 to 10 micrometers, more preferably 1 to 7 micrometers (Column 4, lines 52-54). The porous resin layer contains surfactant and is used for the formation of foam (Column 4, lines 33-35). Note that the examiner is not giving any patentable weight to "master" as stated in the preamble. Because Mori's reference teaches all the structure limitations of the heat-sensitive stencil master as claimed in claim 1. Moreover, the examiner is equating porous resin layer of Mori as solid resinous foam layer as claimed in claim 1. Also note that the thermoplastic materials are heat sensitive. The examiner is interpreting heat sensitive polymeric film of claim 1 as polymeric film that can be soften when exposed to heat.
11. Regarding claim 3, Mori teaches the porous resin layer, which contains fibers (see Abstract).
12. Regarding claims 4-8, Mori teaches the diameter of fibers not greater than 16 micrometers (Column 2, lines 60-62). Thus the diameter can be greater than 1

micrometers and less than 10 micrometers as claimed in claim 4. The length of the fibers is preferably 30 micrometers to 10 millimeters (Column 2, lines 48-50). Thus the fibers of Mori's invention can have range of 100 micrometers to 10 millimeters, which meets the claimed fiber length of claim 4.

13. Additionally, the disclosed length of the fibers in Mori's invention meets the claimed length of fibers of claim 5.

14. Regarding claims 6 and 7, Mori teaches that the fibers may be for example, glass fibers, carbon fibers and synthetic polymer fibers (Column 2, lines 50-52).

15. Regarding claim 8, Mori discloses examples of suitable resin that may be used for porous resin layer (Column 4, lines 3-4). These examples include polyolefin resins (Column 4, lines 12-13), which are thermoplastic resins.

16. Regarding claim 13, Mori teaches an antistatic agent (Column 4, lines 23-25).

17. Regarding claim 14, Mori discloses that the thermoplastic film may be backed by a stick-preventing layer containing a stick-preventing agent (Column 4, lines 55-57). Additionally, the example 1 of Mori's invention teaches that a stick-preventing layer is applied to the backside of the polyester film opposite the porous layer (Column 8, lines 20-23).

18. Regarding claim 17, the invention of Mori is disclosed above. In addition to the above disclosed matters of Mori's invention, the stencil disclosed in the invention of Mori is heated imagewise by, for example, a thermal head to perforate the heated portion of the thermoplastic resin film, thereby obtaining a printing master for reproducing images by mimeographic printing (Column 1, lines 10-13). The examiner is equating

perforations of the thermoplastic resin films as taught by Mori as voids as claimed in claim 17.

19. Regarding claim 19, the invention of Mori is disclosed above.
20. Regarding claims 20-22, please see the invention of Mori that is disclosed above.
21. Regarding claim 26, please see the invention of Mori that is disclosed above.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (US Patent 5,908,687) in view of Coates (US Patent 4,082,887).
23. The invention of Mori is disclosed above. In addition to the above disclosed matters of Mori's invention, the surfactant of Mori can be anionic, cationic, nonionic or ampholytic which can be used in the formation of foam. The use of anionic surfactant can provide good foam forming property and foam stabilizing property (Column 4, lines 33-37).
24. Mori is silent with respect to teaching HLB of surfactant to be greater than 6 as claimed in claim 2. Thus a skilled artisan would have to look elsewhere to find a motivation to use a surfactant with HLB of greater than 6.

25. Coates discloses a coating composition, which is applied to a fibrous nonwoven sheet of polyolefin, and dried to provide a sheet having antistatic properties, high water barrier and antislip properties (See Abstract). The coating contains nonionic surfactant having HLB of about 6-10 (see Abstract). Coates teaches that a value of HLB lower than 6 results in uneven application of coating (Column 4, lines 5-6).

26. A skilled artisan would have found it obvious to use anionic surfactant with HLB of greater than 6, disclosed in the invention of Coates and used it in the porous resin layer of Mori. One would be motivated to do this in order to provide even coating layer of porous resin over the thermoplastic film in the invention of Mori.

27. Claims 9-12 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (US Patent 5,908,687) in view of Hodakowski et al. (US Patent 4,260,703).

28. The invention of Mori is disclosed above. In addition to above disclosed matters of Mori's invention, Mori teaches polyurethane as suitable resin that can be used as a porous resin layer (Column 4, line 14). Although, Mori does not explicitly teach that polyurethane can be cross-linked, it is obvious that polyurethane can be cross-linked.

29. Mori is silent with respect to teaching that the polyurethane can be cross-linked using the electron beam radiation and it is cross-linked using acrylate groups.

30. Hodakowski et al. disclose novel urethane-acrylates and radiation curable compositions (see Title). Hodakowski et al. also teach electron beam curing to cure coatings (Column 1, lines 20-28). The examiner is equating urethane-acrylates of

Hodakowski et al. as polyurethane cross-linked through unsaturated acrylate groups as claimed in claim 12.

31. Regarding claims 9-12 and 23-24, a skilled artisan would have found it obvious to use an electron beam curable urethane acrylates of Hodakowski et al. and used it in the porous resin layer of Mori. One would be motivated to do this in order to provide a porous resin layer containing urethane acrylate that can be cured using the electron beam radiation.

32. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (US Patent 5,908,687) in view of Hoey (US Patent 3,804,700).

33. The invention of Mori is disclosed above. Mori is silent with respect to teaching that the foaming agent comprises ammonium stearate, a sulphate foaming agent or a mixture thereof as claimed in claim 15.

34. Hoey teaches a decorative laminate consisting of substrate such as textile fabric, crushed thermoset foam self-adhered thereto and a top layer of clear film (Column 1, lines 3-5). The laminae are self- adhered or self-bonded; i.e. no extraneous adhesive is needed. In addition Hoey teaches that the foam may be laminated to other substrates such as plastic films (Column 5, lines 7-10).

35. Hoey teaches that commonly in laminating fabrics to foams or foams to other layers such as a transparent film, the practice is to use a separate adhesive layer for such bonding or to use thermoplastic material which can be softened and bonded by heat and pressure. The invention of Hoey makes it unnecessary to use such

adhesives, thus substantially reducing the number of operations necessary to achieve the product of the invention (Column 1, lines 28-37). Note that one objective of the applicant's invention is to provide a method of manufacture of thermosensitive stencil that avoids the use of adhesive (see Background of the Invention, page 3, lines 11-13).

36. Hoey teaches suitable foam-forming-foam stabilizing agents such as sulfate-lauryl alcohol, lauryl sulfate-lauric acid, sodium lauryl sulfate, and other commonly used foamed stabilizers or foaming agents (Column 5, lines 2-6). The said foaming agents of Hoey meet the claimed limitation of sulphate foaming agent as claimed in claim 15. Note that although Hoey do not explicitly teach ammonium stearate, Hoey do suggest that any other commonly used foamed stabilizers or foaming agents can be used. Thus a skilled artisan could also use ammonium stearate as a foaming agent.

37. A skilled artisan would have found it obvious to use sulphate containing foaming agents of Hoey and used it in the porous resin layer of Mori. One would be motivated to do this in order to provide foamed porous resin layer in the invention of Mori.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anish Desai whose telephone number is 571-272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

apd



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PRIMARY EXAMINER